

FLUID PROCESSING AND CONTROL

ABSTRACT OF THE DISCLOSURE

5 A fluid control and processing system for controlling fluid flow among a plurality of chambers comprises a body including a fluid processing region continuously coupled fluidically with a fluid displacement region. The fluid displacement region is depressurizable to draw fluid into the fluid displacement region and pressurizable to expel fluid from the fluid displacement region. The body includes at least one external port. The fluid processing region is fluidically coupled with the at least one external port. The fluid
10 displacement region is fluidically coupled with at least one external port of the body. The body is adjustable with respect to the plurality of chambers to place the at least one external port selectively in fluidic communication with the plurality of chambers. One or more of the chambers may be a processing chamber which includes two ports configured to selectively engage the at least one external port of the body, and a fluid processing material such as an
15 enrichment material or a depletion material. In some embodiments, one or more chambers may include a separation channel, and an electric field may be applied across the separation channel.

20 PA 3203638 v1